BRUHAT BANGALORE MAHANAGARA PALIKE
YELAHANKA ZONE

Name of Work: Estimate forDrilling of Borewells, Providing Pump Motor and Commissioning at Ramachandrapura, 2nd BEL layout, Munisamappa Layout and Blue Moon Garden Surroundings in Ward No. 10, Doddabommasandra.

	010-18-000005	P-1802					Estimate Cost Rs.		3000000.00
Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
1	Geophysical investigation of site for sinking Borewell for supplying drinking water to the habitation either through the Hand pump, MWS of P.W.S.S by vertical electrical sounding by adopting Venner or Schlumberger's method, including reconnaissance survey of geological formation, its qualityf 1.0 meter in consolidated formation for proper seating of casing pipe, depth of drilling required to cover full depth of aquifer proposed to be tapped, probable yield and other information required including transportation of instrument and accessories to work site., engaging techinical personal and labour required etc., as per Specification and direction **(P.48, I. 9.4) PRED.SR 2012-13**	Each BW							
			1				**1**	2292.15	**2292.00**
2	Sinking borewell of 165 mm dia clear using super fast hydraulic rig of capacity 250 PSIG & above CFM & above in all strats including over burden upto 20 mts fixing of casing pipes, collars and cap with necessary cutting, throading and welding including transportation of rig and supporing vehicles, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimum working of compressor for one hour (excluding coat of casing pipes, collars, cap etc.,) **P. 46 / I. 9.1 PRED SR 2012-13**	Rmtr							
	0 to 50 m		1	50.00			**50.00**	349.85	**17492.00**
	50 to 100 m		1	50.00			**50.00**	457.32	**22866.00**
	100 to 150 m		1	50.00			**50.00**	508.77	**25438.00**
	150 to 200 m		1	50.00			**50.00**	537.35	**26868.00**
	200 to 250 m		1	50.00			**50.00**	621.96	**31098.00**
	250 to 300 m		1	50.00			**50.00**	666.54	**33327.00**
3	Supply of ISI mark 175 mm nominal bore, Plain end steel casing pipe - grade of Steel Fee 410 of wall thickness 5.4mm thick confirming to IS 4270:2001 and latest amendments, electric resistance welded steel tube material and confirming to IS 1387/1993 and process in random length of 5 to 7 mts both ends threaded confirming tio IS 554/1985, one end fixied with socket confirming to IS 4270:2001 and the other end with screwed pipes ISI Marking weighing 25.10Kg/mtr (Inclusive of all taxes and durties) Prices include Collar-medium duty **P. iii, I No. 84 PRED SR 2012-13**	Rmtr							
			1	70.00			**70.00**	1470.75	**102953.00**
4	Providing 250mm dia PVC Pipe 6kg/cm **BWSSB SR 2014-15 Page No. 53, Item No. 1(ii)**	Rmtr							
			1	18.00			**18.00**	1221.00	**21978.00**
5	Providing and fixing 160mm Borewell Cap **P. iii, I No. 85**	Each							
			1				**1**	111.00	**111.00**

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
6	Supply and delivery at site brand New texmo/ innoval/ Lubi/ Sabar / Atalanta/ Calamal/ make suitable for vertical installation in 150mm dia bore well comprising of single stage or multistage CF pump close coupled by measns of stainless steel coupling to suitable HP suitable speed totally enclosed and filled with pure drinking water (Wet type) squirrel cage submersible induction motor suitable for opertation of 3PH., 50 Hz, 380/440 volts AC supply fitted with required aqccessories such as suction, casing suction strainers sand guard Non return value etc. complete . The pump and motor shall form an integral unit with all the required fittings 12.50 HP 25 stage. ATALANTA< SUGNA< CRI, KIRLOSKAR and other Equivalent Pumps **PWD SR 2016-17 P. XXXXII Item No. 30 including of all taxes**	No							
	15.00 HP 25 Stage,		1				**1**	72594.00	**72594.00**
7	KSRB 13.3.6: Providing and fixing in trenches galvanised / mild steel tubes (medium grade) **50mm** dia nominal bore with all fittings (earth work in trenches to be measured and paid for separately) including cost of all materials, labour, charges HOM of equipments complete as per specifications. Specification No. KBS 13.2.14 /13.6 **Page No. 90 / Item No. 13.15 / PWD SR 2016-17**	M							
			1	280.00			**280.00**	508.29	**142322.00**
	2016-17 SR + 11% AD-HOC Charges Basic Rate	479.52							
	Area Weightage @ 6%	28.77							
	Total	**508.29**							
8	Heavy Duty Collar 50 mm dia	Nos	47				**47**	144.30	**6782.00**
9	Supplying and drawing 3 core flat PVC sheathed submersible pump cable manufactured with electrolytic grade copper with flexible copper with low resistance conductor confirming to table 3 class 5 of IS:8130-1984 and virgin grade PVC insulation and powder coating extruded PVC sheathed suitable for working voltage upto 1100Volts as per IS-694:1990 & confirming to GTP of **GROUP-A. P. No. 12 / I No. 2.10.4(1) 3C x 6 Sqm mm KPWD Electrical SR 2014-15**	Mtr							
			1x2	290.00			**580.00**	209.46	**121485.00**
10	Labour charges for erection as new /repaired submercible pumpset allong with GI pipe (32/50mm) cable (new submercible pumpset if required will be supplied by the department free of cost and released pumpset shoud be handed over to department including transportation (Each lenth =6.00) **Page No. 558, Items No-3 BWSSB SR for 2014-15)**	Per Length							
	(280/6)=47.00		1	54.00			**54**	97.68	**5275.00**
11	Supplying and fixing 20"x20"x2.5" polished wood board made of not less than 15mm thick plank on both sides with planks made out of not more than 2 pieces and fixing the same to the wall using tapered inverted wooden plugs screws etc., **P No. 44 / I No. 6.6.6 KPWD Electrical SR 2014-15**	Each							
			1				**1**	335.22	**335.00**

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
12	Supplying of 1.1 KV LT UG cable having aluminum conductor PVC insulated, extruded inner sheathed, galvanized, steel strip (except 2CX10Sq.mm wire armoured) confirming to IS-3975:1990 (No. of Strip indicated in GTP) & extruded PVC outer sheathed armoured cable with specified IS-1554 Part-1:1988 & confirming to GTP of GROUP-A **P No. 55/ I No. 7.4.4 4 core 16 Sqmm KPWD Electrical SR 2014-15**	Mtr							
			1	30.00			**30.00**	155.84	**4675.00**
13	Labour charges for laying of 1.1 KV class UG cable in existing trench GI pipe / stoneware pipe / on wall / on pole as required.In existing trench/duct. **P No. 61 / I No. 7.8.1 6Sqmm to 16 Sqmm) KPWD Electrical SR 2014-15**	Mtr							
			1	30.00			**30.00**	11.99	**360.00**
14	Digging of trench of 0.6m deep x 0.50 mtr wide refilling the trench to the required ground level and consolidating etc., complete.(As per Civil SR KSRB I-2, P-7) **P No. 61 / I. No. 7.9.3 KPWD Electrical SR 2014-15**	Mtr							
	For Cutting Road Surface		1	25.00			**25.00**	94.35	**2359.00**
15	Supplying and fixing of class A (medium duty) GI pipe of wall thickness not less than 3.25mm on pole/wall/drain crossing with necessary clamping arrangements for UG cable of 1.1 KV **P. No. 62 / I No. 7.12.1 KPWD Electrical SR 2014-15**	Mtr							
	40mm dia GI pipe		1	4.00			**4.00**	382.95	**1532.00**
16	Supplying and fixing L.T. cast Iron pot heads suitable for 1.1 KV class UG cable filled with necessary bitumen/insulating compound complete with terminals, clamps, bolts, nuts and washers etc., **P. No. 62 / I.No. 7.13.2 KPWD Electrical SR 2014-15**	No.							
	16Sqmm		1				**1.00**	310.80	**311.00**
17	Supplying, fixing, wiring, earth electrode for grounding conduits, I.C. cutouts and other equipment's on the meter board using 40mm dia 2.90mm thick GI pipe 2.5 mtr long buried in a pit ... The pit should be filled with equal proportion of salt and charcoal 150mm all-round the pipe to complete depth. The connection from the pipe to the conduit etc., is to be established through GI wire of size as per ISI specification 7.3.3. of IS 732 using 12mm dia bolts, nuts, washers and check nuts etc., the pipe shall have 16 through holes of 122 mm dia, **(P No. 55, I No. 7.1) KPWD Electrical SR 2014-15**	No							
			1				**1**	3026.97	**3027.00**
18	Supplying & fixing of Porcelain fuse channel with cut out on existing wooden/panel using necessary nuts, bolts and washers.**P No. 44 / I No. 6.7.2 KPWD Electrical SR 2014-15**	No.							
	32 Amps		1x6				**6**	199.80	**1199.00**
19	KSRB13-7.1-4 : Providing and fixing in position 50mm nominal bore gun metal non-return valve horizontal type of approved make including cost of all materials, labour and HOM of equipments with all leads complete as per specifications. Specification No.KBS 13.2.10 / 13.13 **Page No. 93, Item No. 13.55, PWD SR 2016-17**	Nos							
			1				**1**	1585.76	**1586.00**
	Basic Rate	1496.00							
	Area Weightage @ 6%	89.76							
	Total	**1585.76**							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
20	Providing NP/CP waste unions conforming to ISI specifications and fixing them in position as per directions including cost of materials, fixtures and conveyance to work spot etc., complete.- **for 50mm dia**: **Page No. 95 , Item No. 13.81.3 PWD SR 2016-17**	Each							
	50mm dia		1				**1**	252.97	**253.00**
	2016-17 SR + 11% AD-HOC Charges Basic Rate	238.65							
	Area Weightage @ 6%	14.32							
	Total	**252.97**							
21	Supplying and fixing 50mm dia GI X nipple with ISI mark with all lead and lift loading unloading and labour charges etc complete **P. XXXVII PWD SR 2016-17**	No							
			1	4.00			**4**	115.77	**463.00**
22	Supplying shunt capaitors conforming to IS 2834, 3phase 400/440 volts grade for power factor improvement of rotating machinery, Capacitor in KVAR rating Nos. 2KVAR capacity with all lead and lift =, loading, unloading and labour charges etc complete as per specifications **P. 54, Item No. 6.13 KPWD SR 2014-15**	No							
			1				**1**	1649.46	**1649.00**
23	Supplying and fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and 'C' Type curve, indicator ON/OFF, energy cross-3 with Short circuit breaking capacity of 10K and complete wiring as required confirming to IEC 60898. **5-32Amps Group A TPN P No. 47 / I No.6.16.5 KPWD SR 2014-15**	No							
			1				**1**	460.65	**461.00**
24	Fabricating supplying and mounting MS box made out ... SWG suitable for floor / wall mounting, fully weather proof with provision for . better heat dissipation, provided with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clamps with necessary cable entry pipe with gland and box should be finished with 2 coats of red oxide primer paint and finally finished with approved colour enameled metal paint etc., complete **P.No. 57, I. No. 6.41.2 KPWD Electrical SR 2014-15**	Sq.Cm							
	16SWG		1x2	120.00	60.00		14400.00		
			1	360.00	25.00		9000.00		
							23400.00	0.37	**8571.00**
25	Supplying fully automatic store detta starter unit push button type with suitable wires three contractors one adjustable termal timer mounted on a common base plate held in steel enclosure for use on 400/440 volts 3pase and wired offter fixing to the wooden board for motor **Above 15 HP upto 25 HP (KPWD electrical SR for 2014-15 Page No. 44 Item No. 6.2.2)**	No.							
			1				**1**	9183.03	**9183.00**
26	Earthwork excavation for pipeline trenches including deporiting or bank up to a lead of 50 mtrs including sharing and strutting danger lighting and using site rails and boming poles at every 100 mtrs wherever necessary as directed in th following strructure manhole. **Page No. 01/ Item No.1.2.2 / PRED SR 2012-13 Hard Soil**	Cum							
			1	1350.00	0.60	0.75	607.50		
	2016-17 SR + 11% AD-HOC Charges Basic Rate	208.68					**607.50**	208.68	**126773.00**

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
27	Providing and instalation at site of works P.V.C.Pipes including cost of pipes and specials and incluidng lowering into trenches, laying true to line, level and perfect linking at joints, leak proof including jointing encasing the pipe alround to a depth Not less than 15cm with grave or selected earth avalabile from the execavation Etc., **Page No.15 item No.3.4.2 b PRED SR 2012-13.**	Rmtr							
			1	1350.00			1350.00		
							1350.00	174.27	**235265.00**
	2016-17 SR + 11% AD-HOC Charges Basic Rate	174.27							
28	KSRB 2-4 : **Refilling available earth** around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5 m. including cost of all labour complete as per specifications. **Page No. 5 / Item No. 2.11 of PWD SR 2016-17**	Cum							
			Qty. Vide Item No. 27				**607.50**	84.36	**51249.00**
	2016-17 SR + 11% AD-HOC Charges Basic Rate	84.36							
	Area Weightage @ 6%	5.06							
	Total	**89.42**							
29	KSRB13-6.3-6 : Providing and fixing in position brass gate valve with C.I wheel of approved quality (screwed end) 50mm nominal bore including cost of all materials, labour and HOM of equipments with all leads complete as per specifications. Specification No.KBS 13.2.6 / 13.3. (**P.No.92/ I.No. 13.37 of CSR 2016-17**)	Each							
			10				**10**	2414.38	**24144.00**
	2016-17 SR + 11% AD-HOC Charges Basic Rate	2277.72							
	Area Weightage @ 6%	136.66							
	Total	**2414.38**							
30	KSRRB 300 - Excavation for road, drains and similar works KSRRB 300-1. Earthwork **excavation by manual means in ordinary** soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications. MORTH / Chapter 3 **Page No. 142 / Item No. 19.1, PWD SR 2016-17**	Cum							
			13	3.00	1.90	1.50	111.15		
	Basic Rate	82.00					**111.15**	208.93	**23222.00**
	AD-HOC @ 11% of 2016-17 SR	9.02							
	Add loading and unloading Charges **It No 17.1 KSRRB M 100-1**	68.00							
	Average weight of earth 1.28 tonne / kg for 11.90 Km = 1.28 T X 11.90Km X 2.5 / km= 38.08	38.08							
		197.10							
	Area Weightage @6%	11.83							
	Total	**208.93**							
31			13	3.00	1.90	0.65	48.17		
	Above 1.5 M Depth add 25% Extra Basic Rate	102.50					**48.17**	233.05	**11225.00**
	AD-HOC @ 11% of 2016-17 SR	11.28							
	Add loading and unloading Charges **It No 17.1 KSRRB M 100-1**	68.00							
	Average weight of earth 1.28 tonne / kg for 11.90 Km = 1.28 T X 11.90Km X 2.5 / km= 38.08	38.08							
		219.86							
	Area Weightage @6%	13.19							
	Total	**233.05**							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
32	KSRB 4-1.3 : Providing and laying in position **plain cement concrete of mix 1:4:8** with OPC cement @ 180kgs, with 40mm and down size graded granite metal coarse aggregates @0.85cum and fine aggregates @ 0.57cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, **in foundation**, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. **Page No.12, Item No. 4.3 of PWD SR 2016-17**	Cum							
	For Culverts		13x2	3.00	0.60	0.15	7.02		
			13x2	1.90	0.60	0.15	4.45		
	Basic Rate	4867.00					**11.47**	5726.51	**65660.00**
	AD-HOC @ 11% of 2016-17 SR	535.37							
	Sub Total	**5402.37**							
	Area Weightage @ 6%	324.14							
	Total	**5726.51**							
33	KSRB 5.2-3 : Providing and constructing granite / trap / basalt size stone masonry in **foundation with cement mortar 1:6, stone** hammerd dressed in courses not less than 20 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications. KBS 5.1.13 **Page No. 23 / Item No. 5.6. PWD SR 2016-17**	Cum							
	For Culverts		13x2	3.00	0.60	1.00	46.80		
			13x2	1.90	0.60	1.00	29.64		
			13x2	3.00	0.45	0.75	26.33		
			13x2	1.90	0.45	0.75	16.67		
	Basic Rate	4187.00					**119.44**	4926.42	**588400.00**
	AD-HOC @ 11% of 2016-17 SR	460.57							
	Sub Total	**4647.57**							
	Area Weightage @ 6%	278.85							
	Total	**4926.42**							
34	KSRB 15.1.3 Providing ruled pointing to coursed stone masonry with cement mortar 1:3, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications **Page No. 113 / Item No. 15.3, PWD SR 2016-17**	Sqm							
	For Culverts		13x2	2.00		1.00	52.00		
			13x2	1.90		1.00	49.40		
	Basic Rate	4187.00					**101.40**	4926.42	**499539.00**
	AD-HOC @ 11% of 2016-17 SR	460.57							
	Sub Total	**4647.57**							
	Area Weightage @ 6%	278.85							
	Total	**4926.42**							
35	KSRB 4-1.6 ; Providing and laying in position **plain cement concrete of mix 1:2:4** with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregtes @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, **in foundation, plinth and cills**, ncluding cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. **Page No.12, Item No. 4.6 PWD SR 2016-17**	Cum							
	Block Drain bed Concrete		13x2	3.00	0.45	0.10	3.51		
			13x2	1.90	0.45	0.10	2.22		

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
	Basic Rate	5441.00					**5.73**	6401.88	**36702.00**
	AD-HOC @ 11% of 2016-17 SR	598.51							
	Sub Total	**6039.51**							
	Area Weightage @ 6%	362.37							
	Total	**6401.88**							
36	Providing **precast slab of 250 mm thick** including cost of all materials, labour, curing, transportation, loading unloading, etc., complete as per the direction of engineer in charge- Data rate	Sqm							
	Culvert Deck Slab		13x5	1.80	0.60		70.20		
							70.20	5125.00	**359775.00**
	Sub Total								**2690799.00**
	KRIDL Charges@ 10%								**269080.00**
	Labour Cess @ 1%								**26908.00**
	BESCOM Deposit for Borewell	L/S	1	12500.00					**12500.00**
	Miscellaneous and Unforeseen Charges	L/S							**713.00**
								Total	**3000000.00**
		#NAME?							

CERTIFICATE:

1 The work spot has been inspected and the work is found necessary.

2 This estimate is prepared as per PWD 2016-17 + 11% AD-HOC Charges, PWD Elecrical 2014-15, PRED 2012-13 & SE-RDED approved Rate.

3 The provisions were made in this estimate are necessary and adequate.

4 This works come under B.B.M.P. limits.

Assistant Engineer
Ward No. 10

Assistant Executive Engineer
Bruhat Bangalore Mahanagara Palike
Vidyaranyapura Sub Division

Executive Engineer
Bruhat Bangalore Mahanagara Palike
Byatarayanapura Division

ADMINISTRATIVE APPROVAL
Accorded For Rs. Thirty lakhs only
Head of A/c. P-1802
Div. Ref. No. 174/17-18 Date 16/02/18
AE 16/02
EE(BTP) 16/02

Technical Sanction
Accorded For 30 lakhs only
Head of A/C P1802
CBET NO 653/17-18 Dt 17/02/2018
TA
CE (YNK)